

Title (en)  
FLUOROBUTENE DERIVATIVES AND PROCESS FOR PRODUCING SAME

Title (de)  
FLUORBUTENDERIVATE UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)  
DERIVES DE FLUOROBUTENE ET PROCESSUS DE PRODUCTION DE CEUX-CI

Publication  
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Application  
**EP 04750779 A 20040428**

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Abstract (en)  
[origin: WO2004096737A2] The present invention provides novel compounds, 2, 4,4,4-tetrafluoro-1-butene and (E)- and (Z)-1,1,1,3-tetrafluoro-2-butenes. Furthermore, the present invention provides the following novel first and second processes for producing 2,4,4,4-tetrafluoro-1-butene, (E)- and (Z)-1,1,1,3-tetrafluoro-2-butenes, and 1,1,3-trifluorobutadiene. The first process is a process for producing 2,4,4,4-tetrafluoro-1-butene by heating 1,1,1,3,3-pentafluorobutane at from about 200°C to about 700°C. The second process is a process for producing (E)- and (Z)-1,1,1,3-tetrafluoro-2-butenes by bringing 1,1,1,3,3-pentafluorobutane with a base. By the first and second processes, it is possible to obtain respective target fluorobutenes with high selectivity. In third to fifth processes, 2,4,4,4-tetrafluoro-1-butene, (E)- and (Z)-1,1,1,3-tetrafluoro-2-butene, and 1,1,3,-trifluorobutadiene can be produced by heating 1,1,1,3,3-pentafluorobutane in the presence of a catalyst. This catalyst can be regenerated by the contact with a halogen-containing gas in sixth process.

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IPC 8 full level  
**C07C 17/25** (2006.01); **C07C 21/18** (2006.01); **C07C 21/20** (2006.01)

IPC 8 main group level  
**C07C** (2006.01)

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